Dr. F. Ørskov State Serum Institute Copenhagen, Denmark

Dear Dr. Ørskov:

Since my letter acknowledging the receipt of your E. coli strains, I have returned from a trip and had a brief opportunity to examine them. As I had mentioned to Dr. Kristensen, I was particularly interested in repeating your observation on 055 #1064 in regard to the alternative flermentation of lactose and maltose. The following preliminary trial did not give the expected result; before proceeding further, I thought it would be best to ask your counsel:

I simply streaked out the culture from your tube on to EMB maltose agar. The originally negative culture appeared to be homogeneous, but after 2-3 days incubation gave a few + papillae. These were restreaked on EMB maltose and lactose, but the maltose-positives were still lactose-positive, both on EMB agar and in fermentation tubes. Additional selections, from single colony isolates, are under way, but I am led to ask the details of your own observation, that was quoted in Dr. Kristensen's last note on mitative fermentation. If your observations are reproducible in your own hands, it might be of some use if you could send me one of the derived Mal+Lac-strains, so that I could be certain that our methods would detect what you have recognized as such. If there had been only a single observation of Mal+Lac-from Mal-Lac+, this may, of course, have been only a remarkable coincidence.

Yours sincerely.

Moshua Lederberg Professor of Genetics